

LETTERS TO THE EDITOR

Effectiveness and safety of dialysis vascular access procedures performed by interventional nephrologists

To the Editor: In recent years, many reports have documented the performance of hemodialysis (HD) access-related procedures by nephrologists. However, due to the lack of availability of concrete data on complications, residual issues regarding safety and efficacy continue to surround HD access interventions when performed by nephrologists [1, 2]. The report in the October issue of *Kidney International* by Beathard et al [3] describing over 14,000 procedures performed exclusively by nephrologists conclusively establishes the superiority, safety, and effectiveness of hemodialysis endovascular interventions by nephrologists, minimizing the concerns that have been raised. Not specifically provided in the manuscript was whether or not the authors felt that any detailed preoperative laboratory data were required for these procedures. It is likely that this was not the case. At one of the locations at our center, prior to nephrologists having an independent vascular access suite and administering sedation themselves for the endovascular procedures, we were asked to provide detailed preoperative laboratory data to the anesthesiologist assigned to the vascular surgical operative room where the procedures were performed. The current report on a large number of procedures could address this specific issue and set the standards for care. Although the article [3] documents the safety and effectiveness of percutaneous interventions by nephrologists, indirectly it calls for heightened awareness as well as the need for nephrologists to be more involved in the procedural care of HD patients. We suggest that leaders in academic nephrology programs should take an active role in incorporating this emerging specialty into mainstream nephrology. The benefits to patient care, teaching opportunities for renal fellows, and much-needed research in this area would be significant.

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3. BEATHARD GA, LITCHFIELD T: Effectiveness and safety of dialysis vascular access procedures performed by interventional nephrologists. *Kidney Int* 66:1622–1632, 2004

Reply from the Authors

Since the advent of freestanding interventional facilities, the question has been asked should preprocedure serum potassium be performed. We think that the answer is no. Based upon the 14,067 procedures that form the basis of the referenced report, and a total of approximately 72,000 procedures that we have in our database, we have not encountered a problem with this approach. There is no question that dialysis patients are especially prone to the development of fluid and electrolyte problems, which can have serious consequences. All patients having these procedures should have continuous monitoring, including EKG. Although it is possible to have an elevated serum potassium and it not be apparent on the electrocardiogram, this is not common. The best and most effective treatment for the hemodialysis patient with a deranged serum potassium level is hemodialysis. The quickest way to get the patient dialyzed is to proceed with the thrombectomy. A patient at one of these facilities with a thrombosed dialysis access can generally be on dialysis within three hours or less. The median time for a thrombectomy in the series that we reported was only 45 minutes. The standard practice for these cases is to send them directly to dialysis following completion of the procedure. If the thrombectomy is not successful, a tunneled catheter is placed (median time 22 minutes), and then they are sent to dialysis. We have observed that if a patient is referred to the hospital for emergency dialysis, a period considerably longer than this generally elapses before the patient is actually on dialysis. What this means is that even if a serum potassium were performed, the quickest route to definitive therapy would still be to perform the thrombectomy procedure. Based upon our experience, we feel that assessing the patient's serum potassium prior to the procedure is not necessary.

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